AMENDMENTS TO THE SPECIFICATION

Before paragraph **[0001]**, please insert the following title:

FIELD OF THE INVENTION

Between paragraphs **[0001]** and **[0002]**, please insert the following title:

BACKGROUND AND SUMMARY

Between paragraphs **[0025]** and **[0026]**, please insert the following title:

BRIEF DESCRIPTION OF THE DRAWINGS

Between paragraph **[0032]** and **[0033]**, please insert the following title:

DETAILED DESCRIPTION

Please replace Paragraphs **[0004]**, **[0037]**, and **[0041]** with the following paragraph rewritten in amendment format:

[0004] To address such problems, automated blind rivet setting monitoring operations have been developed which effectively measure the force applied to the rivet mandrel during a cyclic fastener setting operation. For example, the applicant's earlier European Patent No. ~~EP0 738 8551~~ EP 738 551 measures the load applied to the mandrel stem during the rivet setting operation against the displacement of the piston assembly within the rivet setting tool, and analysing the results of such measurements against pre-determined settings to determine whether the set rivet falls within acceptable parameters and can be considered as a "good" set. This disclosure further discusses the benefits of analysing the velocity of the piston displacement compared to the applied load to also compare against pre-determined values.

[0037] A jaw assembly (60) is operatively associated with the front end (41) of the pulling shaft (58). The jaw assembly (60) includes a jaw cage (62) having an internal bevelled wedging surface (64) that defines an internal bore (66). An array of split jaws (68) are movably provided within the cage (62). When the outer surfaces of the split jaw (68) act against the bevel surfaces (64), the jaws (68) engage and grip an elongated stem (70) of a mandrel (72) of a blind rivet (14). The mandrel (72) also includes a mandrel head (74). ~~The mandrel (72) comprises the head forming in component of the rivet (14) as is known in the art.~~ The rivet (14) includes a tubular deformable sleeve (76). A variety of methods may be employed to manipulate the jaw assembly (60) to grasp and hold the stem (70) of the mandrel (72), but the method described hereafter is merely illustrative and is not limiting on the invention.

[0041] The name "blind rivets" is derived from the fact that such rivets are installed from only one side of a workpiece or application, the primary side of the blind rivet (14) includes the tubular rivet sleeve (76) having a flange (122) at its rear end as shown in Figure 1. The mandrel (72) has a stem (70) that passes through the tubular rivet body or sleeve (76) and has an enlarged mandrel head (74) formed at one end thereof. Although not shown, the mandrel stem is provided with a weakened portion which has a pre-determined breakpoint which will break when a sufficient load is applied. This is conventional within the field of blind rivet setting and need not be discussed in any great detail herein. The rivet (14) is loaded within the setting tool (12) as shown in Figure 1 and then introduced into a hole passing through an appropriate workpiece (not shown) such that the mandrel head and forward end of the sleeve (76) project through to the "blind side" of the workpiece. The mandrel stem (70) is then clamped between the split jaws (68) and is pulled by the setting tool (12). As the pulling shaft (58) is forced rearwardly (left to right) by fluid pressure being introduced into the hydraulic cylinder chamber (56) so as to displace the piston (88) against the resistance of the weakest spring (86), the pusher rod (80), biased against the stronger spring (84), resists this rearward movement causing the pusher (78) to act against the rear of the split jaw (68) pushing them into and against the tapered internal bevelled wedging surface (64) causing the jaws to grip to the mandrel stem (70). Once the stem is

gripped, the split jaw (68) are fully lodged between the surface (64) and the mandrel stem (70), the pusher rod (80) moves rearwardly with the pulling shaft (58), the biasing force of the strongest springs (84) now having been overcome. As the jaw assembly (60) is carried rearwardly by movement of the pulling shaft (58) (resulting from an increase in pressure in the chamber (56)) the head (74) of the rivet (14) is drawn into and enters the sleeve (76) as is conventional for setting of such blind rivets. This is denoted as the "mandrel entry point" and is the point at which the sleeve (76) begins to deform as the enlarged mandrel head is drawn therein. The pressure or load being exerted at this stage is referred to as the mandrel entry load. As the mandrel (72) continues to be pulled, the rivet sleeve (76) is deformed up to the secondary or blind side of the workpiece being clamped and this deformed part of the sleeve (76) acts as secondary clamping element, whereas the flange (122) becomes the primary clamp element such that the workpieces are clamped therebetween. It is this combination of the secondary and primary clamp elements that hold two or more parts of an application or workpiece together.